Idaho Conservation League

Comment, page 1, paragraph two, "Implementation planning may prove legally bound to only the problems identified in the TMDLs.

> *Implementation planning must address the load and wasteload allocations established in the TMDL. However, voluntary projects to benefit aquatic life that are not part of the TMDL can be developed and included in the plan by stakeholders. Examples might include protecting or re-vegetating riparian lands, ensuring that side channel habitat is accessible to fish in the Boise River, creating pool habitat, or ensuring that cover elements are available for fish.*

Comment, page 2, paragraph 3, "The TMDL inappropriately ignores the criteria and habitat condition needs of wild redband trout and other indigenous species."

> *The criteria established for total suspended sediments in the TMDL are protective of redband / rainbow trout, both wild and hatchery, as well as mountain whitefish. To develop the target criteria for total suspended sediments, multiple species and life stages within those species were evaluated with respect to TSS impacts. As stated in the TMDL, habitat is not an allocatable pollutant, but can be addressed through voluntary projects in the implementation plan.*

Comment, page 4, "Unfortunately, this TMDL does exceeding little to assess and address the majority of concerns dealings with physical, chemical and biological conditions of the river."

> *DEQ has performed extensive assessments of the physical, chemical, and biological conditions in the river, using data collected throughout the length of the Boise River, the mouth of each major tributary, and at waste water treatment plants. The allocatable pollutants that are impairing beneficial uses in the river have been addressed through the development of load and waste load allocations.*

Comment, page 4, "The TSS goal alone is grossly adequate [sic] to assure restoration and protection of indigenous fisheries and other aquatic life."

> *The TSS targets and allocations established by the TMDL are appropriate to protect cold water fisheries in the lower Boise River. Along with direct water column improvements that will be made by reducing suspended sediment loads, the river substrate is also likely to improve if less suspended material settles in slow moving portions of the river. DEQ agrees that it is difficult to quantify the extent to which sediment loads that enter the Boise River settle at certain flow conditions.*

Comment, page 5, TSS targets "..the supporting data inadequately make the case that these targets provide sufficient protection for the most sensitive life stages of salmonids."

The TSS targets that are incorporated into the lower Boise River TMDL are protective of aquatic life uses in the lower Boise River with respect to Total Suspended Sediments.

Comment, page 5, from Appendix G, page 19, "The TMDL asserts that "the existing turbidity standard is not protective of the aquatic life at Parma."

Prior to developing target criteria for total suspended sediment, DEQ evaluated the existing state turbidity standard as a potential surrogate measure for sediment impacts on fisheries. However, because the turbidity data and TSS data in the Boise River are not closely correlated, DEQ elected to develop TSS criteria in order to adequately protect aquatic life. The turbidity criteria of the state are important for maintaining proper light penetration and aesthetic qualities, but must be supplemented in the lower Boise River with TSS criteria designed to protect fisheries. DEQ notes that other watersheds, influenced less by the granitic Idaho batholith, may have a better correlation between turbidity and suspended sediment concentrations.

Comment, page 5, "...quantifiable substrate targets must be established."

Noted

Comment, page 6, "...DEQ has failed to consider such essential issues as floodplain development, ineffective bank stabilization projects, gravel mining, large woody debris, minimum flows, development set backs, wetlands mitigation, the decline of the cottonwood forest, etc. in the context of this TMDL."

The issues presented by the ICL in this comment are all valid, but are outside of the purview of the TMDL. Some of the issues noted can be addressed through the implementation plan or long range land use planning. Minimum flow issues can only be raised in the context of Idaho water law, and not by DEQ or the TMDL development process.

Comment, page 6, "This TMDL fails to address flow alteration on the listed reach (Lucky Peak Dam to Barber Diversion is listed for flow alteration) and in the larger context of assuring that the goals of the CWA will be met."

Flow alteration is not an allocatable pollutant under section 303(d), and cannot be included in TMDLs.

Comment, page 7, Temperature, "While DEQ acknowledges that temperature problems contribute to the impairment of cold water biota in the Boise River (p.1) and that cold water biota criteria are not being met (p. 26), not a single remedial action is described in this TMDL (see page 26)."

The Boise River near Parma does not meet cold water biota each year during June, July, and August. In very low flow, hot years, occasional temperature criteria exceedences may also be evident at Parma during May and September. For roughly nine months of most years, the Boise River is well within cold water biota water temperature criteria. The cyclical nature of the criteria exceedences points strongly to atmospheric conditions, a hypothesis that is verified by empirical analysis of daily temperature data. DEQ's analysis of temperature indicates that the strongest controls on the water temperature in the river are climatic conditions in the Treasure Valley, not anthropogenic sources. For that reason, DEQ does not recommend the development of load allocations for temperature in the TMDL.

Comment, page 8, Water column dissolved oxygen.

DEQ notes that during the applicable salmonid spawning seasons, the Boise River downstream of Veteran's Parkway is required to meet 6 mg/l dissolved oxygen, or 75% of saturation, whichever is greater, as specified in IDAPA 16.01.02.278. Please refer to the complete discussion of dissolved oxygen in the Boise River provided in response to EPA's comments on the same topic, noting that data are analyzed according to applicable salmonid spawning seasons (Rainbow trout from Veteran's Park to Star, and mountain whitefish downstream of Star Diversion.).

Comment, page 8, "We find no ammonia data presented in the TMDL."

Ammonia is not a listed pollutant for the Boise River. The data that DEQ has analyzed for ammonia, as collected by the US Geological Survey, are within applicable state criteria, and no TMDL is required for that substance.

Comment, page 8, "The 'no net increase' stance of this TMDL relative to phosphorus is inconsistent with the Clean Water Act."

DEQ recognizes that the phosphorus allocations presented in the Draft TMDL did not meet the minimum requirements for a TMDL. The allocations have been removed from the document and will be replaced by an application of the state's "no net increase" rule to total phosphorus in the lower Boise River watershed. A schedule change will be put in place to make the nutrient TMDLs for the lower Boise River concurrent with the lower

Snake River and Brownlee Reservoir TMDLs.

Comment, page 9, Failure to Protect all Water bodies. "The DEQ has inappropriately excluded several tributaries, including manmade canals, in the lower Boise River system from load allocations along their length."

The 303(d) listed tributaries to the lower Boise River will be reviewed for TMDL development in the year 2000, and a schedule change to that effect will be made.

Comment, page 9, "All Idaho waters falling under the definition of 'Waters of the United States' found in federal regulations must be included in this TMDL if they are known to be contributing to the loading of listed pollutants/pollution. Agricultural canals and drains must also be given full consideration as to the full range of existing beneficial uses and loading of listed pollutants/pollution to listed Water bodies."

Only 303(d) listed pollutants on 303(d) listed segments are evaluated for TMDL development as needed to correct beneficial use impairments. Load allocations may go to the mouth of many tributaries, as is the case in the lower Boise River TMDL.

Comment, page 10, "Data demonstrating compliance with toxics standards is not presented."

Toxics substances are not listed pollutants on the lower Boise River. However, DEQ does have data for selected metals and toxic substances in the Boise River, none of which indicate water quality problems. DEQ would be glad to discuss these data with the ICL upon your request.

Idaho Rivers United

Comment, page 2, Failure to Protect all Water bodies

The loads from all of the major tributaries to the lower Boise River receive allocations at their confluences with the Boise River for total suspended sediments and fecal coliform bacteria. Reviews of the length of the tributaries themselves will be completed in the year 2000.

Comment, page 3, "Idaho Rivers United believes that the 'no net increase' policy adopted in the TMDL is inadequate and does not comport with the law or the requirements of the TMDL. Reductions are a necessary element of the TMDL."

DEQ recognizes that the phosphorus allocations presented in the Draft TMDL did not meet the minimum requirements for a TMDL. The allocations have been removed from the document and will be replaced by an application of the state's "no net increase" rule to total phosphorus in the lower Boise River watershed. A schedule change will be put in place to make the nutrient TMDLs for the lower Boise River concurrent with the lower Snake River and Brownlee Reservoir TMDLs.

Comment, page 3, Flow and Habitat Policy. "While flow and habitat alteration cannot be accorded a numeric 'load allocation' they must be fully addressed in the TMDL."

Flow alteration and habitat are not allocatable pollutants under section 303(d) of the Clean Water Act, and cannot be included in TMDLs.

Comment, page 4, Flow and Habitat Guidance Idaho Rivers United presented a number of specific recommendations related to flow and habitat in the lower Boise River, as follows:

- "Developing a percent fines for sediment which is scientifically based to protect fishery habitat, particularly native fish."
- "Promote a more natural flow regime that mimics the hydrograph
- "Slow velocities in the upper degrading reach of the river from Lucky Peak Dam to near Eagle Island.
- "Increase velocities in the agrading reach through flow augmentation"

Noted.

Comment, page 5, Temperature

"Out of stream diversions, coupled with warmed return flows probably have an equal or greater impact than ambient air temperatures, yet no studies, analysis, comparison, or modeling were done."

DEQ included as a part of the Draft Technical Appendices for the TMDL Appendix F, a review and analysis of temperature conditions in the Boise River. The document describes the extensive study, comparison, and analysis of the sources of temperature in the lower Boise River watershed. The analysis uses large daily and hourly data sets for temperature in the Boise River, selected tributaries, wastewater treatment plants, groundwater, and the air to quantify the relative impacts of heat sources. The analysis is empirical, based upon actual data, (rather than modeling or literature) and clearly shows that sunlight and air temperature contribute vastly more heat load to the Boise River than tributary return flows. In addition, the analysis examines the extent to which tributary flows would have to be cooled in order to prevent all temperature criteria exceedences in the Boise River. The magnitude of the cooling of the tributaries is not a feasible change to be made, as one would expect given the facts that the tributary heat loads are very small relative to meteorological inputs, and that the tributaries are sustained by large inflows of cool groundwater. DEQ does not recommend load allocations for temperature in the segments of the lower Boise River that are listed for temperature.

Trout Unlimited, Ted Trueblood Chapter

Comment, Provide more discussion of habitat limitations upon fisheries in the Boise River. "We would like to see more focus and discussion on the limiting factors affecting fish habitat."

The habitat limitations that affect the fisheries in the lower Boise River include lack of access to side channel spawning habitat, lack of cover elements, embedded substrates, and water velocities. Asbridge and Bjornn found that during the summer time, runs are the most abundant habitat type in the Boise River. Cover elements are limited in some portions of the Boise River. The runs often have velocities higher than optimal for trout. The river lacks large roughness elements to create habitat diversity and velocity breaks for trout. In addition, pea gravels and pebbles are not abundant (Asbridge and Bjornn, 1988).

Comment, page 1, "...we believe a lack of suitable spawning and rearing habitat is the limiting factor causing impairment to designated beneficial uses of cold water biota and salmonid spawning."

DEQ concurs and seeks creative ideas from Trout Unlimited about opportunities for creating or improving the habitat in the Boise River. If Trout Unlimited is aware of significant opportunities to expand, improve, or provide better access to side channel spawning habitat, please continue to bring such opportunities forward for development.

Comment, page 2, What rate of participation in voluntary best management practices for agriculture would be necessary to meet TMDL load allocations goals?

The Soil Conservation Commission and Natural Resource Conservation Commission are two agencies that will likely play a significant role in helping DEQ to plan the level of implementation needed to achieve sediment and bacteria reduction goals in the TMDL. The precise amount of acreage that must be treated varies with location, i.e. a smaller number of critical acres can be as effective as a larger number of lower priority acres.

Comment, page 2, "The discussion on 'reasonable assurance' on page 54 states that the TMDL will rely substantially on nonpoint source reductions achieve desired water quality, but if reductions are not achieved through 'existing regulatory and voluntary programs, then reductions must come from point sources.' We would recommend that said existing regulatory and voluntary programs could also be adjusted to be more effective, if necessary."

The language included on page 54 of the Draft TMDL is based upon United States Environmental Protection Agency, Guidance for Water Quality Based Decisions: The

TMDL Process, EPA 440/4-91-001, page 24, "State or Local Process for Nonpoint Sources".